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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/394,097	09/13/1999	PAUL JOSEPH DAVIS	DAVIS-6-9-5	3702

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EXAMINER
SING, SIMON P

ART UNIT	PAPER NUMBER
2645	

DATE MAILED: 09/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/394,097	DAVIS ET AL.	
	Examiner	Art Unit	
	Simon Sing	2645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 April 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to because:

1.1 The direction of amplifier 156 in figure 1 is reversed. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

1.2 The decisions (YES/NO) of block 206 in figure 3 are missing. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily

published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 2, 5, 6, 8-10 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Sacca US Patent No. 5,692,042.

2.1 Regarding claim 1, Sacca discloses a voice messaging system with speakerphone capability in figure 1. The transmit path of Sacca's system comprising:

a microphone signal from a microphone 127 (column 8, lines 26-29);

a gain module 128;

a message playback signal relating to a pre-recorded voice message (column 8,lines 7-11, 39-41); and

a summer(summing amplifier 142; column 8, lines 39-43) in said transmit path; Sacca teaches that said playback voice message can be combined with a transmit signal (column 8, lines 39-43). Inherently, when the switches 118 and 134 are closed in a speakerphone call (switches 112, and 136 are also closed), a far end user can hear said microphone signal and said message playback signal.

2.2 Regarding claim 2, the transmit path according to claim 1, further comprising a gain module 120.

2.3 Regarding claim 5, the transmit path according to claim 1, further comprising a switch loss echo suppression module 147.

2.4 Regarding claim 6, the transmit path according to claim 5, wherein:

said message playback signal is combined in said transmit path at a point after said switch loss echo suppression module 147 (figure 1).

2.5 Regarding claim 8, the receive path according to claim 1, further comprising:

a transmit voice activity detector 154 in communication with said transmit path, said transmit voice activity detector indicating a transmit condition of said speakerphone (column 8, line 63 to column 9, line 6).

2.6 Regarding claim 9, the transmit path according to claim 1, wherein:

said voice messaging system is a telephone answering device (column 8, lines 7-9; column 13, lines 42-47).

2.7 Regarding claim 10, Sacca discloses a method of simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone, comprising:

establishing a telephone call (column 7, lines 23-33);

initiating a transmit function of a speakerphone generating a microphone signal (column 7, lines 23-27);

playing back a voice message pre-recorded on said speakerphone generating a playback message signal (column 8, lines 7-12);

combining said microphone signal with said playback message signal; and

transmitting said combined microphone signal and playback signal to a far end party over a telephone line (column 8, lines 7-12, 26-49).

Sacca teaches that said playback voice message can be combined with a microphone signal. When the switches 118 and 134 are closed in a speakerphone call, a combined signal of microphone signal (from microphone 127) and a playback voice signal is transmitted to the far end party.

2.8 Regarding claim 15, Sacca discloses a system of simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone, comprising:

means for establishing a telephone call (column 7, lines 23-33);

means for initiating a transmit function of a speakerphone generating a microphone signal (column 7, lines 23-27);

means for playing back a voice message pre-recorded on said speakerphone generating a playback messaging signal (column 8, lines 7-12);

means for combining said microphone signal corresponding with said playback message signal (column 8, lines 7-12, 26-49); and

means for transmitting said combined microphone signal and playback signal to a far end party over a telephone line (column 8, lines 7-12, 26-49).

Sacca teaches that said playback voice message can be combined with a microphone signal. When the switches 118 and 134 are closed in a speakerphone call, a combined signal of microphone signal (from microphone 127) and a playback voice signal is transmitted to the far end party.

3. Claims 3, 4, 11-14 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacca US Patent N. 5,692,042 in view of Li US Patent No. 5,612,996.

3.1 Regarding claim 3, Sacca discloses a message gain module 120 according to claim 2. Sacca fails to teach that the gain module comprises an automatic gain control (AGC) portion and a fixed gain portion.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches that a gain module comprises an AGC portion 136 and a fixed gain portion 138 in a receive path.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sacca reference with the teaching of Li so that the gain module would have comprised an AGC portion and a fixed gain portion, because such a modification would have enabled the system to maintain a pre-determined, fixed input signal level to the summing amplifier 142.

3.2 Regarding claim 4, Sacca discloses a gain module 128 in the transmit path according to claim 1. Sacca fails to teach that the gain module comprises an automatic gain control (AGC) portion and a fixed gain portion.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches that a gain module comprises an AGC portion 120 and a fixed gain portion 132 in a transmit path.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sacca reference with the teaching of Li so that the gain module would have comprised an AGC portion and a fixed gain portion, because such a modification would have enabled the system to maintain a predetermined, fixed input signal level to the summing amplifier 142.

3.3 Regarding claims 11 and 16, Sacca discloses a microphone gain module 128 in the transmit path according to claim 10. Sacca fails to teach that the microphone gain module 128 has an adjustable gain.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches that a gain module comprises an adjustable gain amplifier 122 (similar to gain module 232 of figure 2a; column 5, lines 61-65; column 6, lines 40-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sacca reference with the teaching of Li so that the microphone gain module would have comprised an adjustable gain module,

because such a modification would have enabled the speakerphone to adjust the microphone's signal to a desirable level in the transmit path.

3.4 Regarding claims 12 and 17, Sacca discloses a playback message gain module 120 in the transmit path in figure 1. Sacca fails to teach that the message gain module 120 has an adjustable gain.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches that a gain module comprises an adjustable gain amplifier 138 (similar to gain module 256 of figure 2a; column 5, lines 61-65; column 6, lines 40-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sacca reference with the teaching of Li so that the playback message gain module would have comprised an adjustable gain module, because such a modification would have enabled the speakerphone to adjust the playback message's signal to a desirable level at the input of summing amplifier 142.

3.5 Regarding claims 13 and 18, Sacca discloses a summing amplifier 142 in the transmit path in figure 1. Sacca fails to teach that the summing amplifier 142 has an adjustable gain.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches that a gain module comprises an adjustable gain amplifier 122 (similar to gain module 232 of figure 2a; column 5, lines 61-65; column 6, lines 40-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sacca reference with the teaching of Li so that the summing amplifier would have comprised an adjustable gain module, because such a modification would have enabled the speakerphone to adjust the gain of a combined signal to a desirable level to be coupled to a telephone line.

3.6 Regarding claims 14 and 19, the Sacca reference, modified by Li, Sacca discloses that combining occurs at a point (summing amplifier 142) in a transmit path after a gain of said microphone signal is adjusted.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sacca US Patent N. 5,692,042 in view of Knuth et al. US Patent No. 5,768,349 and further in view of Li US Patent No. 5,646,990.

Sacca teaches using a switched loss module in the transmit path, but fails to teach using a digital to analog converter (D/A converter) at a point after said switched loss module.

However, Knuth discloses digital telephone answering device with speakerphone capability (column 4, lines 35-38; column 8, lines 44-55), and Li discloses a digital speakerphone wherein a D/A converter 256 is at a point after a transmit AGC module 240 and transmit scale factor 251 (figure 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sacca reference, with the teaching of Knuth

and Li so that the Sacca's system would have been a digital TAD and a D/A converter would been at a point after the switched loss module, because such a modification would have upgraded the Sacca reference from analog to digital.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Sing whose telephone number is (703) 305-3221. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

S.S.

09/20/2002